

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Amendments shown by strikethrough (for deleted matter) or underlining (for added matter).

1. (Currently amended) A method of manufacturing a diamond composite body, comprising: ~~the steps of~~
forming a porous body containing diamond particles and carbon ~~and/or~~
graphite, the body having outer surfaces;
infiltrating silicon or a silicon alloy into the body; and
heating the infiltrated body to form carbides by reaction between carbon ~~and/or~~ graphite and the infiltrated silicon or silicon alloy, ~~characterised by the further steps of providing~~
wherein a surplus of silicon or silicon alloy is provided in connection with the infiltration step so that a layer of silicon or silicon alloy will cover at least one outer surface of the composite body.
2. (Currently amended) The method according to claim 1, ~~characterised by the further comprising the~~ step of machining at least one outer surface covered with silicon or silicon alloy.
3. (Currently amended) The method according to claim 1 ~~or 2, characterised by machining wherein~~ the at least one outer surface covered with silicon or silicon alloy is machined to a roughness less than Ra 0.01 mm.
4. (Currently amended) The method according to claim 1, ~~2 or 3, characterized by machining wherein~~ the at least one outer surface covered with silicon or silicon alloy is machined to a flatness of less than 0.1 mm.

5. (Currently amended) The method according to ~~any one of claims 1-4,~~
~~characterized by supplying~~ claim 1, wherein the surplus of silicon or silicon alloy is
provided in such an amount that the layer of silicon or silicon alloy covers the at
least one outer surface of the composite body with a mean thickness of 0.01-2 mm;
and before machining

the layer of silicon or silicone alloy on the at least one outer surface is
machined to a thickness of 0-1 mm.

6. (Currently amended) The method according to ~~any one of claims 1-5,~~
~~characterized by infiltrating a~~ claim 1, wherein the silicon alloy ~~comprising~~
comprises at least one element from the group consisting of metals Ti, Zr, Hf, V,
Nb, Ta, Cr, Mo, W, Mn, Re, Co, Ni, Cu, Ag, Al and ~~the~~ elements B and Ge.

7. (Currently amended) The method according to ~~any one of claims 1-6,~~
~~characterised by performing~~ claim 1, wherein the infiltration step is performed in an
atmosphere containing reactive atoms or molecules of C or N₂.

8. (Currently amended) A composite body₁ containing: diamond particles ~~(1)~~ bonded
to a matrix of silicon carbide ~~(2)~~ or silicon alloy carbide and silicon or a silicon
alloy, ~~characterised in that~~ wherein the body has outer surfaces; and at least one
outer surface of the body is covered by an outer layer ~~(3)~~ of silicon or a silicon alloy.

9. (Currently amended) The composite body according to claim 8, ~~characterised in~~
~~the~~ wherein at least one outer surface has a flatness of less than 0.1 mm and a
surface roughness less than Ra 0.01

10. (Currently amended) The composite body according to claim 8 ~~or 9,~~
~~characterised in that~~ wherein the outer layer on said at least one outer surface has a
thickness of 0-1 mm.

11. (Currently amended) The composite body according to claim 8, ~~9 or 10,~~
~~characterised in that the~~ an outermost part of the outer layer on said at least one
outer surface includes Si₃N₄.

12. (Currently amended) An electronic component comprising a composite body according to claim 1 ~~any one of claims~~.

13. (New) A method of manufacturing a diamond composite body, comprising:
 forming a porous body containing diamond particles and carbon and graphite, the body having outer surfaces;
 infiltrating silicon or silicon alloy into the body; and
 heating the infiltrated body to form carbides by reaction between carbon and graphite and the infiltrated silicon or silicon alloy,
 wherein a surplus of silicon or silicon alloy is provided in connection with the infiltration step so that a layer of silicon or silicon alloy will cover at least one outer surface of the composite body.